AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

Claims 1-9 (canceled).

10. (new): An apparatus for changing a horizontal or vertical scanning frequency in a decoding block for restoring an MPEG signal including a prediction memory for storing I picture data and forward prediction restored P picture data and a mean operating unit for generating calculated mean data for bidirectional prediction, comprising:

a B picture memory for storing B picture data, the B picture data having been bidirectionally prediction restored by the decoding block;

a prediction memory switching portion for switching the I picture data, the P picture data and the B picture data output from the decoding block to the prediction memory or the B picture memory depending on the type of picture; and

an output data switching portion for performing switching control to increase a frequency with which data is output from the prediction memory and the B picture memory with respect to a general scanning method, using a motion vector of the decoding block, and outputting the data,

wherein the output data switching portion performs the switching control so as to repeat data of a corresponding horizontal line of a previous picture between horizontal lines of a picture when the value of a motion vector is no more than a reference value and to insert corresponding

line data of a previous picture stored in the prediction memory between the horizontal lines of the picture when the value of the motion vector is larger than the reference value.

11. (new): The apparatus of claim 10, wherein a period of a data read from the prediction memory and the B picture memory is reduced to half by setting read clock frequencies of the prediction memory and the B picture memory to be two times higher than the read clock frequencies of a general scanning method.

12. (new): The apparatus of claim 10, wherein the output data switching portion performs the switching control so as to double the vertical scanning frequency of a video signal by repeating output data twice in units of a picture with respect to a general scanning method.

13. (new) The apparatus of claim 10, wherein the output data switching portion performs the switching control so as to double the horizontal scanning frequency or the vertical scanning frequency.

14. (new): An apparatus for changing a horizontal or vertical scanning frequency in a decoding block for restoring an MPEG signal including a prediction memory for storing I picture data and forward prediction restored P picture data and a mean operating unit for generating calculated mean data for bidirectional prediction, comprising:

a B picture memory for storing B picture data, the B picture data having been bidirectionally prediction restored by the decoding block;

a prediction memory switching portion for switching the I picture data, the P picture data and the B picture data output from the decoding block to the prediction memory or the B picture memory depending on the type of picture; and

an output data switching portion for performing switching control to increase a frequency with which data is output from the prediction memory and the B picture memory with respect to a general scanning method, using a motion vector of the decoding block, and outputting the data,

wherein the output data switching portion performs the switching control so as to repeat the data of a corresponding horizontal line of a previous picture between horizontal lines of a picture when the value of a motion vector is no more than a reference value and to insert the calculated line mean data of the mean operating portion between the horizontal lines of the picture when the value of the motion vector is larger than the reference value.

15. (new): The apparatus of claim 14, wherein a period of a data read from the prediction memory and the B picture memory is reduced to half by setting read clock frequencies of the prediction memory and the B picture memory to be two times higher than the read clock frequencies of a general scanning method.

16. (new): The apparatus of claim 14, wherein the output data switching portion performs the switching control so as to double the vertical scanning frequency of a video signal by repeating output data twice in units of a picture with respect to a general scanning method.

17. (new): The apparatus of claim 14, wherein the output data switching portion performs the switching control so as to double the horizontal scanning frequency or the vertical scanning frequency.

18. (new) An apparatus for restoring an MPEG signal and converting a horizontal or vertical scanning frequency of the MPEG signal, the apparatus comprising:

a decoding block for decoding the MPEG signal to generate I picture data which has been restored, P picture data which has been forward prediction restored based on the I picture data, and B picture data which as been bidirectionally prediction restored based on the I picture data or the P picture data;

a first prediction memory for storing the I picture data output from the decoding block;

a second prediction memory for storing the P picture data;

a B picture memory for storing the B picture data;

a prediction memory switching portion for switching the I picture data, the P picture data and B picture data generated by the decoding block to the first prediction memory, the second prediction memory or the B picture memory; and

an output data switching portion for performing switching control to change a frequency with which the I picture data, the P picture data and B picture data are output from the first prediction memory, the second prediction memory and the B picture memory so as to double a horizontal scanning frequency or a vertical scanning frequency of the MPEG signal,

wherein the output data switching portion performs the switching control so as to repeat data of a corresponding horizontal line of a previous picture between horizontal lines of a picture when the value of a motion vector is not more than a reference value and to insert corresponding line data of a previous picture stored in the prediction memory between the horizontal lines of the picture when the value of the motion vector is larger than the reference value.

19. (new): An apparatus for restoring an MPEG signal and converting a horizontal or vertical scanning frequency of the MPEG signal, the apparatus comprising:

a decoding block for decoding the MPEG signal to generate I picture data which has been restored, P picture data which has been forward prediction restored based on the I picture data, and B picture data which as been bidirectionally prediction restored based on the I picture data or the P picture data;

a first prediction memory for storing the I picture data output from the decoding block;

a second prediction memory for storing the P picture data;

a B picture memory for storing the B picture data;

a prediction memory switching portion for switching the I picture data, the P picture data and B picture data generated by the decoding block to the first prediction memory, the second prediction memory or the B picture memory; and

an output data switching portion for performing switching control to change a frequency with which the I picture data, the P picture data and B picture data are output from the first prediction memory, the second prediction memory and the B picture memory so as to double a horizontal scanning frequency or a vertical scanning frequency of the MPEG signal,

wherein the output data switching portion performs the switching control so as to repeat the data of a corresponding horizontal line of a previous picture between horizontal lines of a picture when the value of a motion vector is not more than a reference value and to insert the calculated line mean data of the mean operating portion between the horizontal lines of the picture when the value of the motion vector is larger than the reference value.